

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A TRAFFIC SIGNAL DUE TO RELOCATION OF THE INTERSECTION OF LIBERTY ROAD (MD 26) AND DEER PARK ROAD IN BALTIMORE COUNTY. MD. 26 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION

THIS INTERSECTION WILL OPERATE IN A NEMA FOUR (4) PHASE, FULL TRAFFIC ACTUATED MODE.

III. CONTROLLER REQUIREMENTS

A FULL-TRAFFIC-ACTUATED EIGHT-PHASE CONTROLLER WITH THREE (3) FOUR CHANNEL TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIERS, HOUSED IN A NEMA SIZE 6 BASE MOUNTED CABINET.

IV. INTERCONNECT

A 12 PAIR VOICE GRADE COMMUNICATION CABLE SHALL BE ROUTED TO INTERSECTION OF MD 26 AND MARIOTSVILLE ROAD. AS SHOWN ON INTERCONNECT PLAN AND WIRING DIAGRAM.

V. MAINTENANCE OF TRAFFIC

MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE FOLLOWING STANDARD PLATES FOR TRAFFIC CONTROL: 104.00 - 104-00-30, 104.38-02, 104.39-02, 104.40-02, 104.41-02.

PROJECT CONTACTS

THE CONTACT PERSONS FOR BALTIMORE COUNTY ARE AS FOLLOWS:

MR. GREG CARSKI  
CHIEF, DESIGN SECTION  
(410) 887-3554

MR. GEOFF RICE  
PROJECT MANAGER, BALTIMORE COUNTY TRAFFIC  
ENGINEERING AND TRANSPORTATION PLANNING  
(410)887-3554

MR. BILL O'NEILL  
SUPERINTENDENT,  
TRAFFIC SIGNAL OPERATIONS  
(410) 887-8601

THE POINT OF CONTACT FOR BALTIMORE GAS & ELECTRIC IS AS FOLLOWS:

BG&E CALL CENTER  
410-850-4620

WIRING LEGEND

A-F -2 CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED) (NO.14 A.W.G.)  
G-I,M -7 CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G.)  
J-L -5 CONDUCTOR ELECTRICAL CABLE (NO.14 A.W.G.)  
O -STRANDED BARE COPPER GROUND WIRE (NO.6 A.W.G.)  
LW -LOOP WIRE  
N -12 PAIR INTERCONNECT CABLE (NO.19 A.W.G.)  
P -2 CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TYPE "TC"  
+ -GROUND ROD

EQUIPMENT LIST 'A'

EQUIPMENT TO BE SUPPLIED BY BALTIMORE COUNTY

CATEGORY CODE	QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
971016	1	EA.	SP.	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH TELEMETRY HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
963007	2	EA.	SP.	TWO-CHANNEL TIME DELAY OUTPUT, LOOP DETECTOR AMPLIFIER
960022	7	EA.	SP.	12" INCH 1 WAY 3 SECTION (R.Y.G) SIGNAL HEAD MASTARM MOUNT
973023	175	SF.	S13	FLAT SHEET ALUMINUM SIGNS CONSISTING OF: "R3-5(L) SIGN (30" X 36") - MASTARM MOUNT "R3-5(R) SIGN (30" X 36") - MASTARM MOUNT "D3-2 SIGN "DEER PARK ROAD" - SINGLE FACE (VARIABLE X 16") - POLE MOUNT "D3-2 SIGN "LIBERTY ROAD" - SINGLE FACE (VARIABLE X 16") - WOOD POST MOUNT "R5-1 SIGN (30" X 30") - STEEL U-POST MOUNT "R3-7 (R) SIGN (30" X24") - STEEL U-POST MOUNT "W4-3 SIGN (36" X 36") - STEEL U-POST MOUNT "W4-3 (MOD) SIGN (36" X 36") - STEEL U-POST MOUNT "W1-6(L) SIGN (48" X 24") - STEEL U-POST MOUNT "W3-3 SIGN (36" X 36") - STEEL U-POST MOUNT "R2-1 SIGN (30" X 24") STEEL U-POST MOUNT "W9-2 SIGN (36" X 36") WOOD POST MOUNT "D3-2 (MOD) "DEER PARK ROAD" (BLACK/YELLOW) VARIABLE X 16" - WOOD POST MOUNT

EQUIPMENT LIST 'C'

EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7941 CONNELEY DRIVE, HANOVER, MARYLAND 21076.

QUANTITY	DESCRIPTION
4	STEEL STRAIN POLE
1	CONTROLLER AND CABINET
6	SIGNAL HEAD

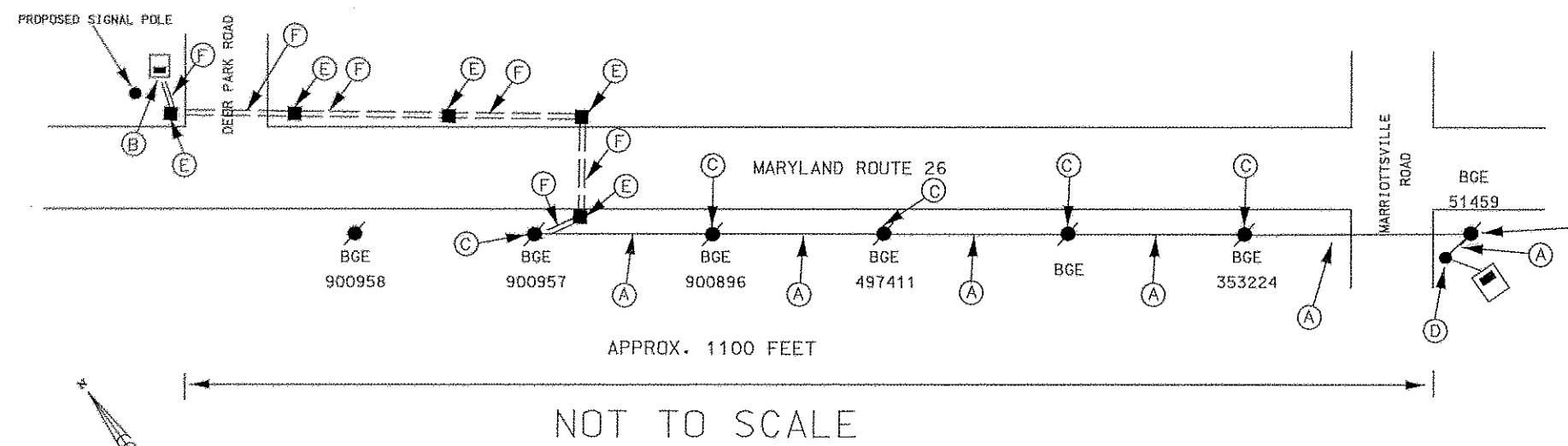
NOTES: 1. ALL EQUIPMENT TO BE REMOVED AND NOT LISTED ABOVE SHALL BECOME THE PROPERTY OF THE CONTRACTOR.  
2. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

EQUIPMENT LIST 'B'

EQUIPMENT FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
1	EA	104	MAINTENANCE OF TRAFFIC
2	CY	205	TEST PIT EXCAVATION
80	LF	XXXX	24 INCH WHITE REFLECTIVE PAVEMENT MARKINGS
1	EA	816	INSTALL CONTROLLER AND NEMA SIZE 6 CABINET BASE MOUNT
15	SF	813	INSTALL OVERHEAD SIGN
160	SF	813	INSTALL GROUND MOUNT SIGN
7	EA	SP	INSTALL SIGNAL HEAD (ANY TYPE)
9	EA	811	FURNISH AND INSTALL ELECTRICAL HANDHOLE
6	CY	801	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
55	LF	805	FURNISH AND INSTALL 1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
60	LF	805	FURNISH AND INSTALL 1" ELECTRICAL CONDUIT- GALVANIZED SLEEVE.
400	LF	805	FURNISH AND INSTALL 2" SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
120	LF	805	FURNISH AND INSTALL 3" SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
100	LF	805	FURNISH AND INSTALL 4" SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
1	EA	807	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
51	LF	813	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4" X 4"
178	LF	XXXX	FURNISH AND INSTALL "U" CHANNEL POST.
1	EA	818	FURNISH AND INSTALL 27-FOOT STEEL POLE WITH A SINGLE 70 FOOT MAST ARM
1	EA	818	FURNISH AND INSTALL 20 FT LIGHTING ARM ON SIGNAL STRUCTURE
1	EA	806	FURNISH AND INSTALL 250W HPS LAMP & LUMINAIRE
1	EA	818	FURNISH AND INSTALL 14-FOOT BREAKAWAY PEDESTAL
1200	LF	XXXX	FURNISH AND INSTALL 12-PAIR COMMUNICATION CABLE, SELF-SUPPORTING.
1	LS	XXXX	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
1	LS	XXXX	REMOVAL OF EXISTING TRAFFIC EQUIPMENT TO BE RETURNED TO SHA

INTERCONNECT PLAN

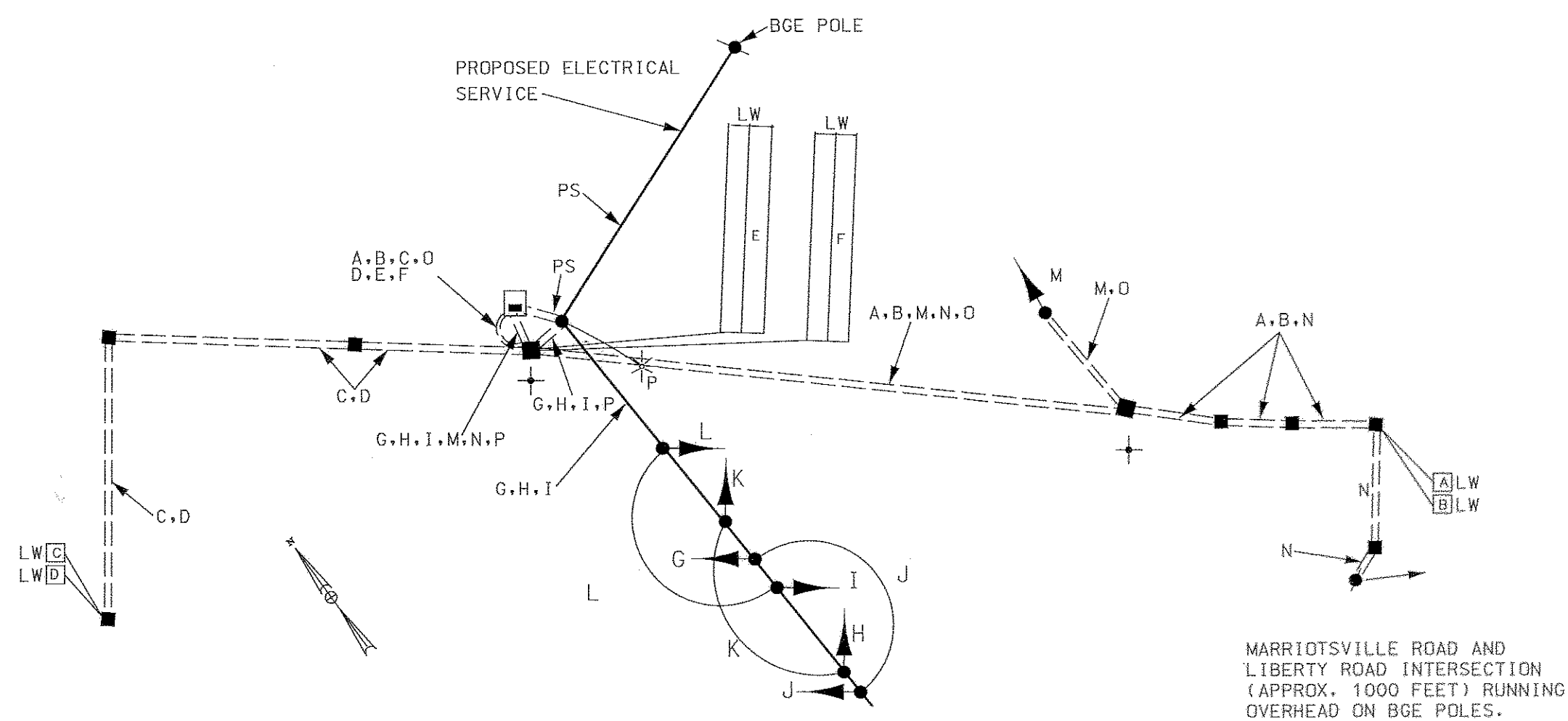


CONSTRUCTION DETAILS

- INSTALL 12-PAIR COMMUNICATION CABLE (SELF-SUPPORTING) ONTO EXISTING UTILITY POLES. REPLACING EXISTING INTERCONNECT CABLE AT THE SAME ELEVATION.
- USE PROPOSED BASE MOUNTED CABINET AND CONTROLLER (VIEW SHEET 1).
- USE EXISTING BGE POLE.
- USE EXISTING STEEL POLE.
- USE PROPOSED HANDHOLE.
- USE PROPOSED CONDUIT. INSTALL 12-PAIR COMMUNICATION CABLE.

PHASE CHART

	1	2	3	4	5	6	7	
	(R)	(R)	(R)	(R)	(R)	(R)	(R)	
	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	
	(G)	(G)	(G)	(G)	(G)	(G)	(G)	
PHASE 2+6	G	G	G	G	R	R	R	⊥
2+6 CHANGE	Y	Y	Y	Y	R	R	R	→
PHASE 4	R	R	R	R	G	G	G	⊥
4 CHANGE	R	R	R	R	Y	Y	Y	→
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	⊥



DANIEL CONSULTANTS /TRAFFIC CONCEPTS  
JOINT VENTURE

8950 ROUTE 108 EAST  
COLUMBIA, MARYLAND

REVISIONS	APPROVALS	MARYLAND DOT - STATE HIGHWAY ADMINISTRATION Office of Traffic & Safety TRAFFIC ENGINEERING DESIGN DIVISION	
	ASST. DIVISION CHIEF, TEDD	MD 26 (LIBERTY ROAD) AT DEER PARK ROAD GENERAL INFORMATION SHEET	
	ASST. DISTRICT ENGINEER, TRAFFIC	LOG MILE #03002603.30	
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION	DATE / /	
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY	DRAWN BY: S.R.M. CHECKED BY: K.M.D. SCALE: 1/16"=1'-0"	F.A.P. NO. _____ S.H.A. NO. _____ COUNTY BALTIMORE
		PLAN SHEET NO.: 3884-GI	SHEET NO. 1 OF 1